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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/528,010

11/16/2005

Karl-Heinz Danger

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116 7590 06/19/2007
PEARNE & GORDON LLP
1801 EAST 9TH STREET
SUITE 1200
CLEVELAND, OH 44114-3108

EXAMINER

LEWIS, RALPH A

ART UNIT

PAPER NUMBER

3732

MAIL DATE

DELIVERY MODE

06/19/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/528,010

Applicant(s)

DANGER ET AL.

Examiner

Ralph A. Lewis

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 March 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 26-49 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 26-49 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

Objection to the Drawings

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the “core reinforcement” of claims 30-33 and the “conical” and angular tapers of the core reinforcement of claims 31-33 must be shown or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Objection to New Matter Added to the Specification

The amendment filed March 21, 2007 is objected to under 35 U.S.C. 132(a) because it introduces new matter into the disclosure. 35 U.S.C. 132(a) states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

The amendment to the paragraph beginning at page 3, line 6, there appears to be no basis for the new discussion that the core reinforcement is not penetrated by grooves or cuts.

The amendment at page 3, line 14 of the specification defining microhardness has no basis in the originally filed papers.

The three new paragraphs added to page 8 of the specification contains a significant amount of material that has no basis in the originally filed papers. Once the application has been filed applicant cannot go back and add material that was not originally disclosed.

Applicant is required to cancel the new matter in the reply to this Office Action.

Rejections based on 35 U.S.C. 112, first paragraph

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 30-35 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

In regard to claims 30-33, it is unclear to this examiner what disclosed element is being referred to with the "core reinforcement" limitation. The terminology does not appear in the originally filed detailed description of the drawings.

In claims 34 and 35, the examiner is at a loss in interpreting the "microhardening" limitation. The term does not appear in the entire data base of U.S. patents and

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published applications (except for applicant's published application). There is no description of "microhardening" in the originally filed specification.

Rejections based on 35 U.S.C. 112, second paragraph

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1-22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claims 30-33, it is unclear to this examiner what disclosed element is being referred to with the "core reinforcement" limitation. The terminology does not appear in the detailed description of the drawings.

In claims 34 and 35, the examiner is at a loss in interpreting the "microhardening" limitation. The term does not appear in the entire database of U.S. patents and published applications (except for applicant's published application).

Rejections based on Prior Art

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

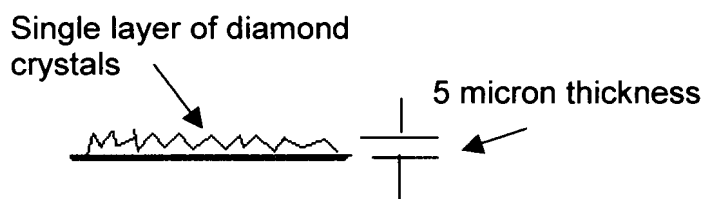
A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 26, 30, 31, 34-36 and 42-50 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent 05309102A (hereinafter '102).

'102 discloses a rotating instrument comprised of a shaft 1 and a working member 2. The working member 2 is comprised of a ceramic base material and an abrasive particle layer of 5-50 microns is deposited on the outer surface. In regard to claim 31 note Figure e. In regard to claim 34, the micron sized abrasive diamond layer of '102 is deemed to meet the undefined "microhardened" terminology. In regard to claim 42, the layer of ceramic material fastened to the shaft 2 is deemed to be part of the "shaft." In regard to claim 45, note the grooves 3, whether they are formed by grinding or molding fails to impose any objective ascertainable structural distinctions from the device disclosed in '102.

In response to the present rejection, applicant argues that the diamond single crystal particle layer of '102 while disclosed as having a thickness of 5 to 50 microns "has no relevance to ... the surface roughness" as is limited by the present claims. The examiner disagrees and is of the firm position that a single 5 micron layer of diamond crystals deposited on a surface would inherently have a roughness ranging from nearly zero (i.e. .5 microns) to 5 microns as is illustrated below.



The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 27-29, 32, and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 05309102A (hereinafter '102).

In regard to claim 27, merely selecting a fine abrasive grit size for the desired finish is well within the obvious realm to the ordinarily skilled artisan. In regard to claims 28 and 29, the examiner guesses that the oddly worded limitation is requiring that all the edges on the working portion be rounded. To have simply rounded the edges of '102 to insure a smooth finish on the work piece would have been obvious to the ordinarily skilled artisan as a matter of routine. In regard to claims 32 and 33, merely specifying cone angles for the Figure e dental burr would have been obvious to the ordinarily skilled artisan as a matter of routine.

In response to the present rejection applicant argues that a burr having a surface roughness of 1-2 microns is not obvious. Taking applicant's arguments to their logical conclusion, then the patent office should issue a patent on a grinding burr with a roughness in of 1-2 microns, then another patent on a grinding bit having a roughness of 3-4 microns, another on an "invention" of a grinding bit of 5-6 microns, and yet another for 7-8 microns. Perhaps hundreds of thousands of patents could be issued to

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"inventors" who all "invent" a different grit size. This examiner, however, is of the firm position that grinding bits with different size grits are well known in the art and merely "inventing" a burr with a particular "grit size" is obvious and well within the skill of the ordinary artisan.

Claims 37-41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Japanese Patent 05309102A (hereinafter '102) in view of Kumar (US 2002/0028422).

Kumar teaches that it is desirable to provide dental burrs with depth marks 44 in order to aid the dentist in determining the depth of the cut. To have provided the '102 dental burrs with depth marks so that the dentist could readily determine the depth of the cut would have been obvious to one of ordinary skill in the art in view of the teaching by Kumar.

Action Made Final

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of


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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Any inquiry concerning this communication should be directed to **Ralph Lewis** at telephone number **(571) 272-4712**. Fax (571) 273-8300. The examiner works a compressed work schedule and is unavailable every other Friday. The examiner's supervisor, Cris Rodriguez, can be reached at (571) 272-4964.

R.Lewis
June 11, 2007


Ralph A. Lewis
Primary Examiner
AU3732